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Nota di contenuto	Screening of Emerging Pollutants in Personal Care Products: Propensity of Risk and Preventive Strategy -- Detection of emerging pollutants in wastewater: current challenges and innovative solutions -- Fundamental distinction of Surface Water Potential Zones and Identification of Suitable Monitoring Locations in the Mahanadi Watershed, Odisha, Using Level Based Weight Assessment (LBWA), Geographical Information System (GIS) and Decision Tree (DT) Techniques -- Impact of a major water pollutant, Endocrine Disrupting Chemicals (EDCs), on aquatic organisms with special emphasis in fish reproduction -- Algae-based systems for removal of emerging pollutant from sewage sludge -- Seaweed Biosorption: A Sustainable Approach to Wastewater Treatment -- Removal of phosphate from wastewater using natural coagulants prepared from leaves of Xanthium strumarium -- Biological Methods for Removal of Pharmaceuticals and Personal Care Products (PPCPs) and Their Fate -- Bioremediation of Pharmaceutically Active Compounds (PhACs): Strategies, Mechanisms, and Future Prospects -- Bioremediation of Antibiotics and their Metabolites from Waste Water -- Microbial-Based Systems for

Emerging Pollutant Removal from Sewage Waste: A Comprehensive Overview -- Traditional enzymatic methods for the removal of hazardous environmental pollutants: A detailed critique -- Emerging pollutants in wastewater and its biomonitoring -- Unveiling the limitations of existing analytical tools in the detection and removal of emerging pollutants in wastewater treatment -- A weal against woe: Detection of pharmaceutical remnants in water using Nano Sensors -- Application of Nanoadsorbents for Remediation of Waste Water: A Review -- Engineered Nanomaterials and Associated Threats in The Environment: Risk Assessment Strategies -- Innovative treatment options for emerging pollutants from wastewater.

Sommario/riassunto

This book focuses on the most recent developments in bioremediation techniques and what the future holds for bioremediation in order to reduce the amount of pollution in the world. This book serves as a valuable resource for policy makers, teachers, researchers, climatologists, and undergraduate and graduate students of agriculture, forestry, ecology, soil science, and environmental sciences. Both industries and anthropogenic activities generate pollutants of different types which have affected human health and have destroyed biodiversity at multiple levels. They largely consist of personal care and pharmaceuticals products produced by different industries. Most of these emergent contaminants cannot be removed by conventional water treatment procedures and are released in surface water. They further contaminate groundwater, soil, sediments and oceans. More efficient and improved treatment systems are required to remove such emerging contaminants. Various microbes can play crucial role in bioremediation by elimination, degradation, detoxification, and immobilization of pollutants. Most of these microbes are versatile in nature and can survive in a wide range of environmental conditions. Furthermore, they can be applied to different pollutants. Microbial degradation and bioremediation can be considered as useful and effective treatment options for emerging pollutants.